

physical significance, but are still approximately applicable, at the high temperatures and pressures they have been considering.

At all events, whether they are right or wrong in taking this view, it appears to them certain that the rules and tables they have laid down, as based on their analyses, experiments, and calculations, may for all practical purposes be accepted as correct, and may, bearing in mind the restrictions to which they have referred in this memoir, be applied to nearly every question of Internal Ballistics.

(Received June 4, 1879.)

Since the authors completed their memoir, a charge of 10lb. of P powder has been fired in 50 per cent. space. The solid products were collected in the form of an exceedingly hard mass, weighing about 3½lb., the fracture of which exhibited the want of homogeneity frequently alluded to by the authors. On the surface there was a deposit of varying thickness, and of a pale yellow colour, consisting chiefly of small crystals. The chemical examination of a portion of this deposit, rapidly collected, showed it to contain a considerable proportion of potassium hyposulphite. This product was exhibited to the Royal Society when the paper was read.

V. "Note on the Spectrum of Sodium." By J. NORMAN
LOCKYER, F.R.S. Received May 28, 1879.

I have lately been engaged in studying the spectrum of Na under new experimental conditions.

In anticipation of a detailed communication, I take leave to state that the vapour given off from the metal after slow distillation in a vacuum for some time shows the red and green lines without any trace whatever of the yellow one.

Hydrogen is given off in large quantities, and at times the C line and the red "structure" are seen alone.

After this treatment the metal, even when red hot, volatilises with great difficulty.

The Society adjourned over the Whitsuntide Recess to Thursday, June 12, the day appointed for the election of Fellows.